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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,663	02/11/2005	Kenji Yasuda	265999US3PCT	1513

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EXAMINER	
ARCHIE, NINA	

ART UNIT	PAPER NUMBER
1645	

NOTIFICATION DATE	DELIVERY MODE
02/27/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/524,663	YASUDA ET AL.	
	Examiner	Art Unit	
	Nina A. Archie	1645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *12 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) *2-9* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 10-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office is responsive to Applicant's amendment and response filed 10-12-07. Claim 1 is amended. Claims 1-16 are pending. Claims 2-9 are withdrawn. Claims 10-16 are new claims.

Rejections Withdrawn

2. Rejection to claim 1 under U.S.C. 102(b) is withdrawn in light of applicant's amendment thereto.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, and 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Sheppard et al US Patent No. 6,143,247 Date November 7, 2000 as evidenced by Mian et al US patent No. 6,319,649 Date November 20, 2001.

The claim is drawn to an inspection apparatus for cell reaction, which is composed of a device for liquid processor comprising a plate-shaped base material, a plurality of first microconduits extending in a first direction and a plurality of second microconduits extending in a second direction different from the first direction, which are formed in the base material, microspaces formed at respective intersections of the first microconduits and second microconduits, the microspaces including a cell supporting part configured to support cells, but permeable to liquids, a valve provided in each of the respective microconduits linked to the microspaces, for opening and closing the microconduit, and a valve control mechanism for controlling each of the valves between

closed and opened states, wherein the apparatus is used in an inspection of a cell reaction, in which a liquid medium necessary for survival of living cells is fed through one of microconduits linked to a selected microspace, in which the living cells are placed, and a test liquid containing a cell stimulator is fed through another microconduit linked to the microspace to inspect a cell reaction caused by the test liquid.

Sheppard et al teaches an apparatus for detecting and quantifying cells suspended in a fluid. Sheppard et al teaches a platform for performing an affinity-binding based assay for specifically binding particulates such as cells, preferably microbial cells, especially bacterial cells, and mammalian cells, hematopoietic cells, and detection means for detecting the particulates specifically bound to a defined surface or chamber comprising the platform. Sheppard et al teach fluidic components to the detection and cell accumulation chamber through channels, preferably microchannels as defined herein, controlled by valves, and the delivery of fluids through such channels is achieved by opening of the appropriate valves (see abstract, column 6 lines 55-60, column 14 lines 1-30).

Thus Sheppard et al teach an inspection apparatus for cell reaction, which is composed of a device for liquid processor comprising a plate-shaped base material (platform), a plurality of first microconduits extending in a first direction and a plurality of second microconduits extending in a second direction different from the first direction, which are formed in the base material, microspaces (chamber) formed at respective intersections of the first microconduits (microchannels) and second microconduits (microchannels), the microspaces (chamber) including a cell supporting part configured to support cells, but permeable to liquids, a valve provided in each of the respective microconduits linked to the microspaces (chamber), for opening and closing the microconduit, and a valve control mechanism for controlling each of the valves (microvalves/capillary) between closed and opened states, wherein the apparatus is used in an inspection of a cell reaction, in which a liquid medium necessary for survival of living cells is fed through one of microconduits (microchannels) linked to a selected microspace (chamber), in which the living cells are placed, and a test liquid containing a

cell stimulator is fed through another microconduit (microchannel) linked to the microspace (chamber) to inspect a cell reaction caused by the test liquid.

Sheppard et al teach a chamber preferably comprises a non-specific cell adhesion coating on the surface thereof that retains the cells in the chamber, and having transparent portions coated with a specific binding reagent, and other portions coated with a reflective material to provide a reflecting surface in a pattern alternating with the transparent, coated portions (column 4 lines 1-18 and column 10). Sheppard et al teach the a platform, with a substrate thinned sufficiently so that the presence of particles on the surface will interfere with the reading of the encoded data using the optical detection system pictured and an optically transparent substrate (see in FIG. 5E FIGS. 1C, 6B and 6C).Thus Sheppard et al teach an apparatus, wherein the cell supporting part is film-like, wherein the base material is transparent.

Sheppard et al teach an apparatus, wherein the cell-supporting parts divides the microspaces into upper and lower spaces, and two microconduits intersect each upper space, and two microconduits intersect each lower space (see claims). Sheppard et al teach valving mechanisms are provided to control of fluid movement and transfer on the platform and that the nature of the valves useful in the platforms of the invention are essentially identical to the valves and microvalves disclosed in co-owned and co-pending U.S. Ser. No. 08/768,990, filed Dec. 18, 1996, explicitly incorporated by reference herein (see column 20 lines 10-20 and Figures 1-20 in US Patent 6,319,469). Thus Sheppard et al teach and apparatus, wherein the valve includes a valve chamber and a valve ball configured to seal an opening in a wall of the valve chamber and disposed within the valve chamber, wherein the valve chamber is spherical.

Sheppard et al teach magnetic and electrical components to actuate microvalves and initiate processes on the platform, as well as external detectors and sensors or components of detectors and sensors that operate in concert with other components. Sheppard et al teach a valve can be accessed through magnetic pickup or through the reflective properties of the coating material at the valve-position. Thus Sheppard et al teach an apparatus, wherein the valve ball comprises ferromagnetic material, which is defined as a substance that exhibit extremely high magnetic permeablility, further

comprising a magnetizable film disposed on a face of the apparatus facing a direction parallel to the opening in the wall of the valve chamber.

Regarding the recitation inspection apparatus "for a cell reaction", "wherein the apparatus is used in wherein the apparatus is used in an inspection of a cell reaction, in which a liquid medium necessary for survival of living cells is fed through one of microconduits linked to a selected micro space, in which the living cells are placed, and a test liquid containing a cell stimulator is fed through another micro conduit linked to the micro space to inspect a cell reaction caused by the test liquid" said recitation is considered an intended use and thus is given no patentable weight on the apparatus. Therefore the claims are drawn to an inspection apparatus.

Status of the Claims

4. Claims 1, and 10-16 are rejected.

No claims are allowed.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nina A. Archie whose telephone number is 571-272-9938. The examiner can normally be reached on Monday-Friday 8:30-5:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner supervisor, Shanon Foley can be reached on 571-272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nina A Archie
Examiner
GAU 1645
REM 3B31

/Shanon A. Foley/

Supervisory Patent Examiner, Art Unit 1645